

ABSTRACT

Provided are palladium-containing powders and a method and apparatus for manufacturing the palladium-containing particles of high quality, of a small size and narrow size distribution.

5 An aerosol is generated from liquid feed and sent to a furnace, where liquid in droplets in the aerosol is vaporized to permit formation of the desired particles, which are then collected in a particle collector. The aerosol generation involves preparation of a high quality aerosol, with a narrow droplet 10 size distribution, with close control over droplet size and with a high droplet loading suitable for commercial applications. Powders may have high resistance to oxidation of palladium. Multi-phase particles are provided including a palladium-containing metallic phase and a second phase that is dielectric.

15 Electronic components are provided manufacturable using the powders.

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